



1309.43669X00

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

**Applicants:** Hiroshi SUZUKI et al.

**Serial No.:** 10/802,913

**Filed:** March 18, 2004

**For:** STORAGE SYSTEM

**Group:** 2836

**Examiner:** A. Amrany

**INFORMATION DISCLOSURE STATEMENT  
UNDER 37 CFR §1.97 & 1.98**

**MS Amendment**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

February 9, 2007

Sir:

In the matter of the above-identified application, Applicants are submitting herewith a copy of the documents listed in the attached form equivalent to Form PTO-1449 for the Examiner's consideration. Copies of the U.S. documents are not being enclosed.

This information disclosure statement is being submitted before the mailing date of either a final action or a notice of allowance and is accompanied by the fee of \$180.00 set forth in 37 CFR §1.17(p).

To the extent the documents listed on the attached form equivalent to Form PTO-1449 are not in the English language, the requirement of 37 CFR §1.98(a)(3) for a concise explanation of the relevance is satisfied by an English language translation of the documents.

02/12/2007 KAHMED1 00000018 10002913

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It is respectfully requested that this information disclosure statement be considered by the Examiner.

Please charge any shortage in the fees due in connection with the filing of this paper, including extension of time fees, to the deposit account of MATTINGLY, STANGER, MALUR & BRUNDIDGE, P.C., Deposit Account No. 50-1417 (1309.43669X00) please credit any excess fees to such deposit account.

Respectfully submitted,



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Carl I. Brundidge  
Registration No. 29,621  
MATTINGLY, STANGER, MALUR & BRUNDIDGE, P.C.

CIB/jdc  
(703) 684-1120

FORM PTO-1449 U.S. Department of  
Commerce Patent and Trademark OfficeINFORMATION DISCLOSURE  
STATEMENT BY APPLICANT

(Use several sheets if necessary)

ATTY. DOCKET NO.

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SERIAL NO.

10/802,913

APPLICANT

Hiroshi SUZUKI et al.

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## U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DA IF APPROPR
	6 6 3 6 9 3 4	10/03	Linnell			
	5 9 5 1 6 9 1	09/99	Ng et al			
	6 1 1 5 7 9 7	09/00	Kanda et al			
	6 1 7 3 3 6 0	1/01	Beardsley et al			
	6 5 5 3 4 0 8	4/03	Merrell et al			
	6 6 0 6 6 9 0	8/03	Padovano			
	6 7 7 2 3 6 5	8/04	Obara			
2 0 0 4	0 1 6 2 9 4 0	8/04	Yagisawa et al			
2 0 0 3	0 2 2 1 0 6 1	11/03	El-Batal			

## FOREIGN PATENT DOCUMENTS

DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	ABSTRACT
0 8 4 4 5 6 1	5/98	European			YES

## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

EXAMINER	DATE CONSIDERED
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EXAMINER: Initial if citation is considered, draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

(Form PTO-1449 [6-4])

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	6 1 0 8 7 4 8	08/00	Ofek et al			
	6 5 1 0 4 9 1	1/03	Franklin et al			
	6 6 5 1 1 3 7	11/03	Baek et al			
	6 7 0 8 2 3 2	03/04	Obara et al			
	5 5 4 6 5 5 8	8/96	Jacobson et al			

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DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	ABSTRACT YES
1 3 1 5 0 7 4	5/03	European			

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2 0 0 4	0 1 9 3 7 6 0	9/04	Matsunami et al			
2 0 0 4	0 1 9 9 5 1 5	10/04	Penny et al			
2 0 0 2	0 1 3 8 7 0 5	9/02	Suzuki et al			
2 0 0 3	0 2 2 1 0 7 7	11/03	Ohno et al			
2 0 0 4	0 0 1 0 6 6 2	1/04	Aruga			
	7 0 8 0 2 0 1	7/06	Suzuki, et al			

## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

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2 0 0 4	0 1 2 8 6 2 7	7/04	Zayas			
2 0 0 3	0 0 9 7 6 0 7	5/03	Bessire			
2 0 0 4	0 0 1 0 6 6 0	1/04	Konshak et al			
2 0 0 4	0 0 7 8 7 0 7	4/04	Apperley et al			
2 0 0 4	0 0 7 3 7 4 7	4/04	Lu			
2 0 0 4	0 1 7 7 2 1 8	9/04	Meehan et al			

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	5 6 0 3 0 0 3	2/97	Akizawa et al			
	5 8 6 7 7 3 6	2/99	Jantz			
	5 8 8 4 0 9 8	3/99	Mason, Jr.			
	6 2 1 9 7 5 2	4/01	Sekido			
	6 2 2 3 2 4 9	4/01	Kato et al			
	6 5 4 9 9 7 8	5/03	Mansur et al			
	6 6 4 0 2 7 8	10/03	Nolan et al			
	6 6 8 4 2 9 5	1/04	Fujimoto et al			
	6 7 4 5 2 8 7	6/04	Fujimoto et al			
	6 2 0 1 6 9 2	3/01	Gamble et al			

## FOREIGN PATENT DOCUMENTS

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2 0 0 2	3 3 3 9 5 4	11/02	Japan			
2 0 0 4	1 7 8 5 6 7	6/04	Japan			

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	6 6 2 8 5 1 3	9/03	Gallagher et al			
	6 8 3 1 8 3 9	12/04	Bovell			
	6 0 6 1 7 5 0	5/00	Beardsley et al			
	6 7 6 3 4 3 6	7/04	Gabber et al			
	6 7 9 2 4 8 6	9/04	Hanan et al			
	6 1 3 7 6 7 9	10/00	Chang			
	6 3 5 1 3 7 5	2/02	Hsieh et al			
	6 4 8 4 2 3 6	11/02	Fujimoto et al			
	6 4 8 4 2 6 9	11/02	Kopylovitz			
	6 7 2 8 9 2 2	4/04	Sundaram et al			
	5 4 7 5 8 1 4	12/95	Tomimitsu			

**FOREIGN PATENT DOCUMENTS**

DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	ABSTRACT
2 1 8 8 8 3 5	7/90	Japan			YES

**OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)**

IBM Technical Disclosure Bulletin vol. 38, No. 7, July 1995 (New York), "Foreground/Background Checking of Parity in a Redundant Array of Independent Disks-5 Storage Subsystem", pp. 455-458.
Laboratory Automation and Information Management 32, 1996, (Elsevier Science B.V.), R E Dessey, "Computer Connections", pp. 53-62.

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	6 5 0 2 1 0 8	12/02	Day, III, et al			
	6 6 5 8 5 9 2	12/03	Cohen et al			
2 0 0 2	0 0 0 7 4 6 9	1/02	Taketa et al			
2 0 0 2	0 0 4 0 4 1 3	4/02	Okada et al			
	6 1 5 4 8 5 0	11/00	Idleman et al			
	6 4 0 0 7 3 0	6/02	Latif, et al			

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EXAMINER INITIAL	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	ABSTRACT YES
2 0 0 1	1 4 2 6 5 0	5/01	Japan			

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2 0 0 3	0 0 9 7 5 0 4	5/03	Oeda et al			
2 0 0 3	0 1 1 5 4 3 7	6/03	Tomita			
2 0 0 3	0 1 4 5 1 6 7	7/03	Tomita			
2 0 0 3	0 1 9 6 0 0 2	10/03	Nakayama et al			
2 0 0 3	0 1 9 6 1 4 7	10/03	Hirata et al			
2 0 0 3	0 2 0 4 6 7 1	10/03	Matsunami et al			

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2 0 0 4	0 0 2 4 9 3 0	2/04	Nakayama et al			
2 0 0 4	0 0 6 8 6 1 0	4/04	Umberger et al			
2 0 0 4	0 1 0 7 3 2 5	6/04	Mori			

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2 0 0 1	0 0 4 6 1 1 8	11/01	Yamanashi et al			
2 0 0 1	0 0 5 4 1 3 6	12/01	Ninomiya et al			
2 0 0 1	0 0 5 6 5 2 7	12/01	Ninomiya et al			
2 0 0 2	0 1 6 2 0 5 7	10/02	Talagala			
2 0 0 3	0 0 4 1 2 0 1	2/03	Rauscher			
2 0 0 3	0 1 7 2 1 5 0	9/03	Kennedy			
2 0 0 4	0 1 1 7 5 3 4	6/04	Parry et al			
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2 0 0 3	0 2 2 1 0 6 1	11/03	El-Batal et al			
2 0 0 3	0 0 4 1 2 7 8	2/03	Lin			
2 0 0 4	0 2 6 7 5 1 6	12/04	Jibbe et al			
2 0 0 5	0 0 2 7 9 0 0	2/05	Petty			

**FOREIGN PATENT DOCUMENTS**

DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	ABSTRACT YES
9 9 5 0 7 5 4	10/99	WO			

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2 0 0 3	0 2 3 1 4 2 0	12/03	Kano et al			
2 0 0 4	0 0 8 8 4 8 2	5/04	Tanzer et al			
2 0 0 4	0 1 6 9 9 9 6	9/04	Paul et al			
2 0 0 1	0 0 1 9 5 0 9	9/01	Aho et al			
2 0 0 3	0 0 4 6 4 6 0	3/03	Inoue et al			
2 0 0 4	0 1 3 9 2 6 0	7/04	Steinmetz			
2 0 0 4	0 1 4 8 3 2 9	7/04	Ogasawara et al			

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2 0 0 2	0 0 4 9 8 8 6	4/02	Furuya et al			
2 0 0 2	0 1 4 4 0 5 7	10/02	Li et al			
2 0 0 3	0 1 3 1 2 9 1	7/03	Morrison et al			
2 0 0 3	0 1 6 7 4 3 9	9/03	Talagala et al			
2 0 0 3	0 0 9 7 4 8 7	5/03	Rietze et al			
2 0 0 4	0 1 1 1 4 8 5	6/04	Mimatsu et al			
2 0 0 4	0 2 6 8 0 3 7	12/04	Buchanan, Jr. et al			
2 0 0 4	0 2 6 8 0 6 9	12/04	Satoyama et al			
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	6 2 1 9 7 5 3	4/01	Richardson			
	6 7 7 2 2 8 7	8/04	Uchiyama et al			
	6 6 8 4 2 8 2	1/04	Kocls			
2 0 0 3	0 1 8 2 5 0 2	9/03	Kleiman et al			
2 0 0 2	0 0 1 9 8 9 7	2/02	Cruyningen			
2 0 0 4	0 2 4 3 3 8 6	12/04	Stolowitz et al			

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3 6 1 4 6	2/03	Japan			

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2 0 0 4	0 1 4 8 4 6 0	7/04	Steinmetz			
2 0 0 4	0 1 4 8 4 6 1	7/04	Steinmetz			
2 0 0 4	0 2 3 6 9 0 8	11/04	Suzuki et al			
2 0 0 3	0 1 1 0 3 3 0	6/03	Fujie et al			
	5 8 4 5 3 1 9	12/98	Yorimitsu			
2 0 0 3	0 1 4 9 8 4 0	8/03	Bolt, et al			

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Serial Attached SCSI and Serial ATA Compatibility, Intel, 2002, pp. 1-8.

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2 0 0 2	0 1 4 4 0 4 8	10/02	Bolt, et al			
2 0 0 2	0 1 4 7 9 4 5	10/02	Fox et al			
2 0 0 4	0 1 5 3 6 1 4	5/04	Bitner et al			
2 0 0 3	0 1 6 3 6 3 9	8/03	Baum			
	5 8 3 2 2 0 4	11/98	Apperley et al			
	6 2 4 0 4 8 6	5/01	Ofek et al			

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5 1 5 0 9 0 9	6/93	Japan			YES
1 0 3 0 1 7 2 0	11/98	Japan			Eng.Trans

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	6 7 4 5 2 8 7	6/04	Fujimoto et al			
2 0 0 3	0 1 1 0 3 3 0	06/03	Fujie et al			
2 0 0 3	0 2 1 2 8 5 9	11/03	Ellis et al			
2 0 0 3	0 2 2 1 0 6 1	11/03	Ei-Batal et al			
2 0 0 3	0 0 4 1 2 7 8	2/03	Lin			
2 0 0 4	0 0 7 8 7 0 7	04/04	Apperley et al			
2 0 0 4	0 0 1 0 6 6 0	1/04	Konshak			
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FILING DATE

March 18, 2004

GROUP

2836

**U.S. PATENT DOCUMENTS**

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
2 0 0 4	0 1 1 1 5 6 0		Takase et al			
2 0 0 4	0 2 6 7 5 1 6		Jibbe et al			
2 0 0 5	0 0 2 7 9 0 0		Petty			

**FOREIGN PATENT DOCUMENTS**

DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	ABSTRACT YES
2 1 5 0 7 4 6	05/02	Japan			

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EMC 2-Gigabit Disk-Array Enclosure EMC Corporation (DAE2), EC and ATA Models, Hardware Reference P/N 014003048, Rev A02
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EXAMINER

*Ad' R*

DATE CONSIDERED

7/18/07

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(Form PTO-1449 [6-4])

**FORM PTO-1449 U.S. Department of  
Commerce Patent and Trademark Office**

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use several sheets if necessary)

ATTY. DOCKET NO.

1309.43669X00

SERIAL NO.

10/802,913

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EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DA IF APPROPR
2 0 0 5	0 1 1 7 4 6 8	06/05	Kano et al			
2 0 0 5	0 1 2 0 2 6 3	06/05	Kano et al			
2 0 0 5	0 1 2 0 2 6 4	06/05	Kano et al			
2 0 0 5	0 1 5 4 9 4 2	7/05	Kano et al			
	6 2 8 2 6 0 2	8/01	Blumenau et al			

**FOREIGN PATENT DOCUMENTS**

DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	ABSTRACT
0 9 3 3 0 1 8 4	12/97	Japan			YES XX

**OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)**

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2 0 0 2	0 1 6 2 0 4 8	10/02	Ackaret et al			
	6 7 6 3 4 0 9	7/04	Elliott			
	6 0 3 7 7 3 8	3/00	Morita et al	318	625	
	6 4 4 9 7 0 9	9/02	Gates			
	5 8 2 2 7 8 2	10/98	Humlíček et al			
	5 8 1 2 7 5 4	9/98	Lui et al			

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EXAMINER INITIAL	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	ABSTRACT YES
2 0 0 1	3 3 7 8 6 8	12/01	Japan			XX
2 0 0 1	1 6 7 0 4 0	6/01	Japan			XX
	9 3 3 0 1 8 2	12/97	Japan			XX
	1 0 0 1 3 4 5	5/00	European			

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2 0 0 2	0 0 6 2 4 5 4	5/02	Fung			
2 0 0 3	0 1 8 9 8 1 1	10/03	Peeke et al			
2 0 0 3	0 1 3 5 5 7 7	7/03	Weber et al			
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DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	ABSTRACT
					YES

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ESG Product Brief EMC, March 2003, CLARiION with ATA, pp. 1-2.	
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2 0 0 1	0 0 1 4 9 5 6	8/01	Nagata et al			

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DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	ABSTRACT YES

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	EMC CLARIION Backup Storage Solutions Back-up-to-Disk Guide with LEGATO Networker DiskBackup Option (DBO), Engineering White Paper, 4/8/2003, pp. 1-28.
	EMC CLARIION Backup Storage Solutions Backup-to-disk Guide with Computer Associates, BrightStor ARCserve Backup, Engineering White Paper, 4/16/2003, pp. 1-24.
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LIST OF DOCUMENTS CITED BY APPLICANT (Use several sheets if necessary)				APPLICANT H. Suzuki, et al			
				FILING DATE March 18, 2004		GROUP 2836	
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	AA	6,763,409	07/13/04	Elliott, Stephen J.			
	AB	5,812,754	09/22/98	Liu et al			
	AC	5,432,046	06/06/95	Nunnelley et al			
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	AH						
	AI						
	AJ						
	AK						
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	AN						<input type="checkbox"/> <input type="checkbox"/>
	AO						<input type="checkbox"/> <input type="checkbox"/>
	AP						<input type="checkbox"/> <input type="checkbox"/>
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.)							
	AR	Judd, Ian, "Device Services Interface", Online, June 19, 1996, pp. 1-8.					
	AS	"Veritas Volume Manager Storage Administrator 3.2, Administrator's Guide", Veritas Software Corporation, Online, July, 2001, pp. 1-184.					
	AT	Synetic Inc., SyneRAID -800SA, SCSI/Fibre-toSATA RAID Subsystem product information, available at: <a href="http://www.synetic.net/Synetic-Products/SyneRAID-Units/SyneRAID-800SATA/SyneRAID-800SA.html">http://www.synetic.net/Synetic-Products/SyneRAID-Units/SyneRAID-800SATA/SyneRAID-800SA.html</a>					
		"SATA Disk System and Expansion of Unit offer 3.5 TB storage", Product News Network, Nov. 1, 2004.					
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	AA	2002/ 0069317	06/06/02	Chow et al			
	AB	2002/ 0069334	6/06/02	Hsia et al			
	AC	2003/ 0031187	02/13/03	Heffernan et al			
	AD	2003/ 00221061	11/27/03	El-Batal et al			
	AE	2004/ 0010660	01/15/04	Konshak et al			
	AF	2004/ 0034731	02/19/04	Sivertsen			
	AG	2004/ 0193791	09/30/04	Felton et al			
	AH						
	AI						
	AJ						
	AK						
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	AP						<input type="checkbox"/> <input type="checkbox"/>
<b>OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.)</b>							
	AR	SGI InfiniteStorage TP9300S Storage Array, Data Sheet, available at:					
		<a href="http://www.sgi.com/pdfs/3643.pdf">http://www.sgi.com/pdfs/3643.pdf</a>					
	AS	Adaptec PS4500 Fibre to SATA RAID, Data Sheet, available at:					
		<a href="http://www.sunstarco.com/PDF%20Files/Adaptec%20FS4500%20SATA.pdf">http://www.sunstarco.com/PDF%20Files/Adaptec%20FS4500%20SATA.pdf</a>					
	AT						
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* EXAMINER INITIAL		DOCUMENT	DATE	NAME	CLASS	SUBCLASS	FILING DATE (If Appropriate)
	AA	2005/ 0138154	06/23/05	Seto			
	AB	2005/ 0097132	05/05/05	Cochran et al			
	AC	2004/ 0148460	07/29/04	Steinmetz et al			
	AD	6,834,326	12/21/04	Wang et al			
	AE						
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	AG						
	AH						
	AI						
	AJ						
	AK						
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	AO						<input type="checkbox"/> <input type="checkbox"/>
	AP						<input type="checkbox"/> <input type="checkbox"/>
<b>OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.)</b>							
	AR	Infotrend EonStor A16F-R1211/S1211 FC-to-SATA RAID Subsystem product information, available at: <a href="http://www.infotrend.com/2_product/a16f-r(s)1211.asp">http://www.infotrend.com/2_product/a16f-r(s)1211.asp</a>					
	AS						
	AT						
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